



## Complete Summary

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### TITLE

Diabetes mellitus: percent of patients with diabetes mellitus with blood pressure greater than or equal to 160/100 or no blood pressure recorded in past year (spinal cord injury & disorder [SCI&D] cohort).

### SOURCE(S)

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

## Brief Abstract

### DESCRIPTION

This measure assesses the percent of patients with diabetes mellitus with blood pressure greater than or equal to 160/100 or for whom no blood pressure was recorded in the past year.

### RATIONALE

The National High Blood Pressure Education Program Coordinating Committee recently issued the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII). According to the report, new recommendations for tighter control of high blood pressure may drastically reduce the number of individuals who die each year from hypertension-related illnesses. The report further states that the relationship between blood pressure and risk of cardiovascular disease events is continuous, consistent, and independent of other risk factors. The higher the blood pressure becomes, the greater the chance of heart attack, heart failure, stroke, and kidney disease. The guidelines highlight 4 basic strategies: Pay attention to blood pressure before it is high; in people over age 50, systolic pressure is more important than diastolic; Two (or more) drugs are better than one for most patients; and Build trusting clinician/patient relationships that motivate patients to be healthy.

Blood pressure control can reduce cardiovascular disease (heart disease and stroke) by approximately 33% to 50% and can reduce microvascular disease (eye, kidney, and nerve disease) by approximately 33%. In general, for every 10 mm Hg reduction in systolic blood pressure, the risk for any complication related to diabetes is reduced by 12%.

## PRIMARY CLINICAL COMPONENT

Diabetes mellitus; hypertension; blood pressure

## DENOMINATOR DESCRIPTION

Eligible patients with diabetes mellitus from the Spinal Cord Injury & Disorder (SCI&D) cohort (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## NUMERATOR DESCRIPTION

The number of patients from the denominator with blood pressure greater than or equal to 160/100 or for whom no blood pressure was recorded within the past year

## Evidence Supporting the Measure

### PRIMARY MEASURE DOMAIN

Outcome

### SECONDARY MEASURE DOMAIN

Process

## EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

## NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [VA/DoD clinical practice guideline for the management of diabetes mellitus.](#)

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Use of this measure to improve performance  
Wide variation in quality for the performance measured

## EVIDENCE SUPPORTING NEED FOR THE MEASURE

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

External oversight/Veterans Health Administration  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physician Assistants  
Physicians

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

Unspecified

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

Percent of the population with diabetes:

- Nearly 20.1% of the United States population, or 7.0 million people age 65 and older
- Approximately 2.8 million or 13% of all African Americans

- Two million or 10.2% of all Latino Americans
- Approximately 7.8 million or 8.3% of all men over the age 20 in the United States
- Approximately 9.1 million or 8.9% of all women over the age of 20 in the United States

## EVIDENCE FOR INCIDENCE/PREVALENCE

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

## ASSOCIATION WITH VULNERABLE POPULATIONS

See "Incidence/Prevalence" field.

## BURDEN OF ILLNESS

Complications of diabetes include:

### Heart disease

- Heart disease is the leading cause of diabetes-related deaths. Adults with diabetes have heart disease death rates about 2 to 4 times higher than adults without diabetes.

### Stroke

- The risk of stroke is 2 to 4 times higher among people with diabetes.

### High blood pressure

- About 73% of adults with diabetes have blood pressure greater than or equal to 130/80 millimeters of mercury (mm Hg) or use prescription medications for hypertension.

### Blindness

- Diabetes is the leading cause of new cases of blindness among adults 20-74 years old.
- Diabetic retinopathy causes from 12,000 to 24,000 new cases of blindness each year.

### Kidney disease

- Diabetes is the leading cause of treated end-stage renal disease, accounting for 43% of new cases.
- In 1999, 38,160 people with diabetes began treatment for end-stage renal disease.

- In 1999, a total of 114,478 people with diabetes underwent dialysis or kidney transplantation.

#### Nervous system disease

- About 60% to 70% of people with diabetes have mild to severe forms of nervous system damage. The results of such damage include impaired sensation or pain in the feet or hands, slowed digestion of food in the stomach, carpal tunnel syndrome, and other nerve problems.
- Severe forms of diabetic nerve disease are a major contributing cause of lower-extremity amputations.

#### Amputations

- More than 60% of nontraumatic lower-limb amputations in the United States occur among people with diabetes.
- From 1997 to 1999, about 82,000 nontraumatic lower-limb amputations were performed each year among people with diabetes.

### EVIDENCE FOR BURDEN OF ILLNESS

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

### UTILIZATION

Unspecified

### COSTS

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

### IOM CARE NEED

Living with Illness

### IOM DOMAIN

Effectiveness

## Data Collection for the Measure

### CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

Eligible patients with diabetes mellitus from the Spinal Cord Injury & Disorder (SCI&D) cohort\*

\*Refer to the original measure documentation for patient cohort description.

## DENOMINATOR SAMPLING FRAME

Patients associated with provider

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Encounter

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

Eligible patients with diabetes mellitus from the Spinal Cord Injury & Disorder (SCI&D) cohort\*

\*Eligible Diabetes Mellitus Patients: Meets Spinal Cord Injury & Disorder (SCI&D) cohort selection criteria AND has a diagnosis of diabetes upon Computerized Patient Record System (CPRS) chart review. Refer to the original measure documentation for patient cohort description and sampling size strategy.

Exclusions  
Unspecified

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

The number of patients from the denominator with blood pressure greater than or equal to 160/100\* or for whom no blood pressure was recorded within the past year

\*Blood pressure (BP) greater than or equal to 160/100: Most recent visit to any clinic. If BP taken more than once during that visit, lowest one is used. Lowest is determined by mean arterial pressure: (systolic + diastolic + diastolic) divided by 3.

Exclusions  
Unspecified

## DENOMINATOR TIME WINDOW

Time window precedes index event

## NUMERATOR TIME WINDOW

Encounter or point in time

## DATA SOURCE

Administrative and medical records data

## LEVEL OF DETERMINATION OF QUALITY

Individual Case

## OUTCOME TYPE

Clinical Outcome

## PRE-EXISTING INSTRUMENT USED

Unspecified

## Computation of the Measure

## SCORING

Rate

## INTERPRETATION OF SCORE

Better quality is associated with a lower score

## ALLOWANCE FOR PATIENT FACTORS

Unspecified

## STANDARD OF COMPARISON

Internal time comparison  
Prescriptive standard

## PRESCRIPTIVE STANDARD

Fiscal year (FY) 2005 targets for blood pressure (Spinal Cord Injury & Disorder [SCI&D]):

- Meets Target: 7% (lower is better)
- Exceeds Target: 5% (lower is better)

## EVIDENCE FOR PRESCRIPTIVE STANDARD

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

Diabetes mellitus: blood pressure greater than or equal to 160/100 (poor control).

### MEASURE COLLECTION

[Fiscal Year \(FY\) 2005: Veterans Health Administration \(VHA\) Performance Measurement System](#)

### MEASURE SET NAME

[Diabetes Mellitus](#)

### DEVELOPER

Veterans Health Administration

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2004 Dec

### REVISION DATE

2005 Mar

### MEASURE STATUS

This is the current release of the measure.

### SOURCE(S)

Office of Quality and Performance (10Q). FY 2005 VHA executive career field network director performance measurement system and JCAHO hospital core measures. Technical manual. Washington (DC): Veterans Health Administration (VHA); 2005 Mar 9. 244 p.

### MEASURE AVAILABILITY



The individual measure, "Diabetes Mellitus: Blood Pressure Greater Than or Equal to 160/100 (Poor Control)," is published in "FY 2005 VHA Performance Measurement System: Technical Manual."

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#### NQMC STATUS

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